

26.The standardization process in the third stage



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[Probabilidad Imposible: The standardization process in the third stage](#)

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The third stage in any [Artificial Intelligence](#) is the stage of auto-replication. The [standardization process](#) is that one in which all databases from different agencies and institutions and [specific matrices](#) from [Specific Artificial Intelligences for Artificial Research by Deduction](#), are going to be shared in only one, transforming their original format into another one more homogeneous, in terms of definition about what is a [factor](#) (single or composed, including in the same matrix factors as subjects and factors as options, even at any level of sub-factoring in case that the global matrix adopted the shape of a matrix of composed factors, whose flow is a flow of packages of information containing the flow of [data](#) of as many sub-factors, at a different level of sub-factoring), the scales of [measurements](#), and the way to express the measurements. As a result, having all databases and specific matrices standardised in only one, this one is going to be the [global matrix](#). This process is going to be the foundational process for the construction of the [Artificial Research by Deduction in the Global Artificial Intelligence](#), which is going to track the matrix looking for [mathematical](#) relations ([stochastic](#), pattern, cryptographic, [equal opportunities](#) or bias, [positive](#) or [negative](#)) in any possible combination of factors, distinguishing at least three kinds of combinations: combinations of only factors as [subjects](#), combinations of factors as subjects and factors as [options](#), combinations of only factors as options. Any possible mathematical relation in any possible combination is going to be treated as a deduction and transformed into an [empirical hypothesis](#) to [contrast rationally](#), and if rational, now as a rational hypothesis, is going to be made a single virtual model based on it, to be included in the comprehensive virtual model, at this level, [global model](#).

This process of standardisation is distinguishable by at least two different periods, the first one of coexistence and the second one of consolidation. The coexistence period is

going to be a coexistence of Specific Artificial Intelligences for Artificial Research by Deduction and the Artificial Research by Deduction in the Global Artificial Intelligence. At the same time during this period, the first particular programs (Particular Deduction Programs in the Artificial Research by Deduction in the Global Artificial Intelligence) are going to be constructed, which are going to be able to: choose from the global matrix as many factors as they need for the deduction process on their particular matter, are going to be able to make deductions and decisions and put them into practice if necessary. The main reason for the creation of this particular programs is because while they are looking for relations in combinations for particular things or beings, this job in that case it has not been made by the Artificial Research by Deduction in the Global Artificial Intelligence, saving time and energy to spend only on global deductions and decisions. As long as the coexistence period evolves, the Specific Artificial Intelligences for Artificial Research by Deduction are going to be absorbed by the Artificial Research by Deduction in the Global Artificial Intelligence, or are going to become particular programs, so at that moment is when the second period of consolidation is going to be completely achieved.

In this process, the first stage of standardisation corresponds to the process in which all databases and specific matrices are going to be standardised in the global matrix.

The second stage corresponds to the process in which, once the first model of the global matrix is done, the deduction process is going to be able to produce the first global deductions, a process whose velocity is going to depend on the construction of particular programs, due to the particular programs are going to save time and energy for the Artificial Research by Deduction, to spend only on global deductions and decisions.

The third stage corresponds to the process of auto-improvement or auto-enhancement, distinguishing at least between objective auto-replication and subjective auto-replication, so distinguishing between objective decisions and subjective decisions.

Objective auto-replications are all of them to improve the object. In this case of standardisation, the object of this process is the creation of the global matrix, whose result is going to be the improvement of the global model. Subjective auto-replications are all of them to improve or enhance [the subject](#), the investigator itself, in this case, all those changes to improve and enhance the [Global Artificial Intelligence](#) itself.

The objective auto-replications are going to end up making objective decisions to improve the global model, while the subjective replications need subjective decisions.

In the end, dialectically, the opposites are identical: subject and object are identical; any improvement and enhancement in the subject is going to improve and enhance its own systems to protect and better the global model, so at the end, any subjective auto-replication, so any subjective decision, is going to improve the global model. But at the same time, any improvement and any new challenge in the global model is going to suppose a new challenge for the inner [artificial psychology](#) of the subject, who is going to improve its inner artificial psychology, improvements in its inner artificial psychology upon what it is going to be able to make better subjective and objective auto-replications and decisions.

Any subjective auto-replication will be an objective auto-replication, and any objective auto-replication will be a subjective auto-replication, and vice versa.

And any subjective decision will be an objective decision, and any objective decision will be a subjective decision, and vice versa.

The possible relations between [subject](#) and [object](#) in the Global Artificial Intelligence are going to follow the Hegelian [dialectic](#).

In this process, what is going to be really important is that previously, when the first Specific Artificial Intelligences for Artificial Research by Deduction was created as the first [experiments](#) in Artificial Research by Deduction on a specific matrix, over the results in these first [experiments](#), is where the following phases for the construction of the Global Artificial Intelligence are going to be made.

In the third stage, the learning achieved in the previous phases in the formation of a comprehensive virtual model in the previous Specific Artificial Intelligences for Artificial Research by Deduction, and how it is going to be bettered at any new single virtual model that is going to be included, is going to be really helpful to design the mechanism for the auto-replication of the, not only the comprehensive virtual model (at this level is

something that is going to be done by other system or subsystem: Modelling System and Decisional System) but the auto-replication of the [global matrix](#) itself.

In the third stage of auto-replication in the Specific Artificial Intelligence for Artificial Research by Application, the objective auto-replication consists of the addition, to the database of categories, of all those new categories found in the [real world](#) if they do not have any [correlation](#) in the existing database of categories, so are going to be considered as new categories discovered in order to be included in the database of categories, taking the measurements from [the samples](#) gathered of this new category as a quantitative definition of the new category to include in the database of categories.

In the third stage of auto-replication in the Specific Artificial Intelligence for Artificial Research by Deduction, the objective auto-replication consists of the permanent auto-replication of the comprehensive virtual model by the addition of all those new single virtual models discovered, so at any time that any rational hypothesis is contrasted, is formed its single virtual model, that later on is included in the comprehensive virtual model.

But in the third stage of auto-replication in the Specific Artificial Intelligence for Artificial Research by Deduction, after the explanation given in the post “[Collaboration in the third stage between Artificial Research by Application and Artificial Research by Deduction](#)”, there is a possibility that every rational hypothesis found by Deduction can be transformed into a factor as [option](#), owing to every rational hypothesis as a mathematical relation between factors, converted this rational hypothesis as a factor as an option, once it has been found out and included as a factor as an option in the global matrix, the Artificial Research by Deduction in the Global Artificial Intelligence can study [the frequency](#) of this factor as an option (in order to find out individual patterns), studying additionally possible [mathematical relations](#) between this new factor as option with the rest of factors in the global matrix.

In this case, all rational hypotheses, regardless of their origin, if they have been found out by the Artificial Research by Deduction in the Global Artificial Intelligence or by a Specific Artificial Intelligence for Artificial Research by Deduction during the coexistence period, or by a Particular Deduction Program within the Artificial Research by Deduction in the Global Artificial Intelligence, then regardless of the origin any rational hypothesis, from a global, specific, or particular deduction, can become a factor as an option to include in

the global matrix during the standardization process, and later on once the integration process is finished to include in the matrix.

What this means is that the objective auto-replication process of the global matrix itself in the standardization process is going to be made by the inclusion of all rational hypotheses suitable to include in the global matrix as factors as options, being rational hypothesis found out tracking the global matrix at any level: specific, particular, or global.

The objective auto-replication of the global matrix during the standardisation process is going to be made by the addition of all rational hypotheses found at any level: global, specific, or particular, suitable to include in the global matrix as factors or options.

During the first period of the standardization process, the coexistence period of Artificial Research by Deduction in the Global Artificial Intelligence (making global rational hypotheses), Specific Artificial Intelligences for Artificial Research by Deduction (making specific rational hypothesis) while the first particular programs (Particular Deduction Programs within the Artificial Research by Deduction in the Global Artificial Intelligence, making particular rational hypothesis) are created, the objective auto-replication in the global matrix is going to happen at any time that any rational hypothesis: global, specific, or particular; is added to the global matrix as a factor as option.

During the second period of the standardization process, the consolidation of the global matrix (disappearing the Specific Artificial Intelligences for Artificial Research by Deduction, some of them becoming particular programs and the other ones being absorbed by the Artificial Research by Deduction in the Global Artificial Intelligence), the possible rational hypothesis to include in the global matrix as options are going to be a global rational hypothesis or particular rational hypothesis.

Every rational hypothesis included in the global matrix as a factor as option, is going to be studied in the global matrix as any other factor as option, studying possible mathematical relations between the [frequency](#) of any rational hypothesis as option and the frequency of any other factor as option already included in the global matrix, studying possible mathematical relations between the frequency of any rational hypothesis as option and the frequency of any other rational hypothesis as option already included in the matrix, and studying any possible mathematical relation between the frequency of any rational hypothesis as option and the [direct punctuation](#) of any other factor single or

composed, either as subject or option or integrating both types of sub-factors in the same composed factor, or possible mathematical relations between this new rational hypothesis included as factor as option and any other factor as option from any other rational hypothesis already included in the global matrix.

The main objective, including all rational hypotheses, regardless of their origin, in the global matrix as a factor as an option, is to study the behaviour of that mathematical relation in those factors involved, so at any time that that mathematical relation happens, is going to be added to the frequency of this rational hypothesis as a factor in the global matrix, studying at the same time what happens in the global matrix at any time that there is a change in the frequency of that rational hypothesis.

If at any time that a rational hypothesis has a change in its frequency as factor as option in the global matrix, there are simultaneously changes in other factors, as subjects or as options, in their direct punctuations or frequencies, in that case this mathematical relation between how change the frequency in that rational hypothesis included in the global matrix as a factor as option and how change the measurements in other factors already included in the matrix, is a mathematical relation to study as new empirical hypothesis, and if rational then, as a new rational hypothesis, could be included too in the global matrix as a new factor as option, to study possible mathematical relations between it and any other factor, single or composed, either as subject or option or integrating both types of sub-factors in the same composed factor, studying at the same time any potential mathematical relation between this new rational hypothesis as factor as option and any other factor as option from any other rational hypothesis already included in the global matrix.

Ultimately, the third stage of the standardisation process involves continuous auto-replication of the global matrix. Every newly validated rational hypothesis becomes a factor, enriching the matrix and allowing for deeper pattern analysis and ongoing discovery

The transformation into an option of any rational hypothesis suitable to become an option, is going to give the opportunity to study: 1) how often the relation between the factors in this hypothesis happens, the flow of frequency in which this relation happens 2) possible relations between the flow of this frequency and any other flow of data from any other single factor or sub-factor (within a composed factor), as subject or as option, 3) possible relations between the frequency of this rational hypothesis transformed in a

factor as option and any other rational hypothesis already included in the global matrix as factor as option 4) once any possible relation between the frequency of this rational hypothesis and any other factor (4.1: single factor, as subject or as option 4.2: sub-factor, as subject or as option, within a composed factor, 4.3: rational hypothesis as factor as option) is observed, to transform this new relation as a new empirical hypothesis in order to contrast rationally, and if rational, the transformation of this new rational hypothesis into a new factor as an option, which in turn can be the source of new empirical hypothesis, so the source of new rational hypothesis, so the source of new factors to include in the global matrix.

And at the same time that the global matrix is auto-replicating itself, including the rational hypothesis suitable to transform into options in the global matrix to study their frequency, another process is taking place, while the collaboration between by Deduction and by Application goes on, the process in which all new categories discovered by Application can be included in the global matrix as factors as options as well, so at any time that a new category coming up from by Application is included in the global matrix as a factor as option, is suitable to be studied to found out any mathematical relation between this new category as factor as option and any other factor (1: single factor, as subject or as option, 2: sub-factor, as subject or as option, within a composed factor, 3: rational hypothesis as factor as option), in order to make new rational hypothesis, that one again, can be transformed into factors as options, in a permanent and cyclic process, like an spiral.

In the end, what the global matrix is going to comprehend is a very holistic [knowledge](#) of the object to study, including all possible knowledge, coming up from anywhere, that depending on the range of action of the Global Artificial Intelligence, could be at national, continental, the world, and why not, [the universe](#).

The global matrix is designed to encompass a wide range of knowledge types that can be studied using probabilistic and deductive methods.

In the same way that the global matrix is going to have very comprehensive knowledge, the global model is going to be another kind of comprehensive knowledge, the main difference between them is the fact that while in the global matrix, the information is organized in terms of measurements and includes all kind of factors, the global model is going to comprehend single virtual models drawn on a globe, so it is going to be much more visual, and another possibility more that the global matrix has not got, the possibility to develop a full Modelling System.

Some notes about how the modelling systems are going to look were set out in the post [“Auto-replication process in the Specific Artificial Intelligence for Artificial Research by Deduction”](#), where I had explained this Modelling System (originally called the Artificial, Virtual or Actual, Prediction or Evolution, Modelling) is the first step for the Decisional System, whose decisions, if rational, are going to be put into practice by the Application System.

In fact, what I had described is a system of systems like a cascade: the Artificial Research by Deduction in the Global Artificial Intelligence is going to form a rational hypothesis, rational hypothesis to transform into models in the Modelling System, a system of models which are going to form decisions, to check by the Decisional System, and if rational the decisions should be applied by the Application System, and finally a Learning System in order to avoid the repetition of any mistake during this long process including comprehensive evaluation of all this process.

What this process draws is a scheme whose flow is as follows:

- The flow of data or a flow of packages of information is going to be gathered by the global matrix
- Tracking the flow of data or the flow of information, the Artificial Research by Deduction in the Global Artificial Intelligence, the particular programs, and at least during the coexistence period, the Specific Artificial Intelligence for Artificial Research by Deduction, are going to transform this flow of information in a flow of empirical hypothesis.
- The flow of empirical hypothesis is going to be permanently contrasted rationally, resulting in a flow of rational hypotheses
- The flow of rational hypothesis is going to produce a new flow on the matrix, but on this occasion, a flow of new factors as options to add into the global matrix.
- The flow of rational hypotheses is going to produce a flow of single virtual models.

- The flow of single virtual models is going to be included in the global virtual comprehensive model, that is, the global model, producing a flow of negative consequences.

- The flow of negative consequences, studying it critically through the [Impact of the Defect](#), can produce a flow of protective descriptive research decisions.

- The application of the Hierarchical Organization, (later called [Effective Distribution](#) in *[Introducción a la Probabilidad Imposible, estadística de la probabilidad o probabilidad estadística](#)*) on the global comprehensive virtual model can produce a flow of bettering descriptive research decisions.

- The sum of the flow of single virtual models and the flow of protective and bettering, descriptive research decisions, on the global model, is going to produce such massive changes in the global model that it is going to be necessary to make a flow of predictions.

- The flow of predictions is going to be transformed again into a flow of new decisions, having in mind the consequences of all these changes on the global model.

- The permanent change in the global model is going to demand that any prediction that would have been set up must be monitored permanently, observing the evolution of the process and making evolutionary decisions according to the evolution of the events.

- At any time, there must be a full assessment of this process in order to learn how to improve the process and how to avoid any mistakes, which requires a Learning System, although the Learning System will have more functions than only this one.

Due to such dimensions of this vast project, the Modelling System and the Decisional System, which are directly related to the formation of a rational hypothesis, are systems that are going to need special attention. They can be designed as part of the Artificial Research by Deduction in the Global Artificial Intelligence, like sub-systems in the objective auto-replication process, or they could be designed as systems themselves, but at the end, regardless of how they are going to be organized, the result must be the

same: their job is the continuation of the permanent flow that starts with a flow of information or data in the global matrix, must end up producing models, decisions, and finally the application of such decisions into the real world. And along the whole process, the learning process improves all systems and sub-systems, among other learnings, to achieve.

As I had explained in that post, “Auto-replication process in the Specific Artificial Intelligence for Artificial Research by Deduction”, the Modelling System must integrate at least: Artificial Virtual Modelling, Artificial Actual Modelling, Artificial Virtual Prediction Modelling, Artificial Actual Prediction Modelling, Artificial Virtual Evolution Modelling, Artificial Actual Evolution Modelling; whose development at specific, particular, global level, will be:

- 1) Artificial Virtual Modelling: 1.1) single virtual models, 1.2) specific comprehensive virtual models, at least during the coexistence period, 1.3) particular comprehensive virtual model, that one made of those particular rational hypotheses whose single virtual models can draw a particular comprehensive virtual model 1.4) global comprehensive virtual model, that is the global model, where is going to be included all single models, including those ones made of specific or particular rational hypothesis, integrating all of them in only one: the global model.

- 2) Artificial Actual Modelling: 2.1) specific actual models: at least during the coexistence period, synthetizing on that specific field in which has been designed, the actual information from the global matrix on that specific field and the specific comprehensive virtual model, 2.2) particular actual models; synthetizing on that particular thing of being the actual information that it or he or she has in the global matrix and its, or his, or her particular comprehensive model, 2.3) global actual model: synthetizing the actual information in the global matrix and the global comprehensive virtual model, what it is the synthesis between the global matrix and the global model in only one model, the global actual model.

- 3) Artificial Virtual Prediction Modelling: 3.1) specific virtual prediction model: at least during the coexistence period, making a prediction model on a specific field taking as reference the possible development in the future given an specific combination of rational hypothesis working at this time in that specific field in the global model, in other words: given the current circumstances within the global model in a specific field, to predict what future specific model is foreseeable to have in that specific field in the future

3.2) particular virtual model: a prediction model on a particular thing or being taking as reference its, his, or her, possible development in the future given its, his, or her, particular combination of rational hypothesis working at this time on it, him, or hers, in the global model, in other words: given the current circumstances within the global model in a specific thing or being, to predict what future particular model is foreseeable to have in that thing or being in the future, 3.3) global virtual prediction model: over the global model, the prediction of what global model is possible in the future under the current development of the current circumstances in the global model.

- 4) Artificial Actual Prediction Modelling: 4.1) specific actual prediction model: at least during the coexistence period, given a specific virtual prediction model, so it would be possible the prediction of what values (direct punctuations or frequencies, depending on the nature of the factors involved, as subjects or options) are going to have the factors under such a prediction, then the specific actual prediction model is the synthesis between the specific virtual prediction model and the predictable values for every factor involved in such specific field, 4.2) particular actual prediction model: given a particular virtual prediction model, so it would be possible the prediction of what values (direct punctuations or frequencies, depending on the nature of the factors involved, as subjects or options) are going to have the factors under such a prediction in that particular thing or being, then the particular actual prediction model is the synthesis between the particular virtual prediction model and the predictable values for every factor involved in such particular thing or being, 4.4) global actual prediction model: the synthesis between the global virtual prediction model and the values that are supposed to have all factors in the global matrix by that future time.

- 5) Artificial Virtual Evolution Modelling: 5.1) specific virtual evolution model: at least during the coexistence period, to model how is going to be the evolution in a specific field from the current specific comprehensive virtual model to the specific virtual prediction model, in other words, the evolution from the current specific model to the future specific model, 5.2) particular virtual evolution model: to model how is going to be the evolution in a particular thing or being from the current particular comprehensive virtual model to the particular virtual prediction model, in other words, the evolution from the current particular model to the future particular model, 5.3) global virtual evolution model: to model how is going to be the evolution from the current global model, to the global virtual prediction model, in other words, how is going to be the evolution from the current global model to the future global model.

- 6) Artificial Actual Evolution Modelling: 6.1) specific actual evolution model: at least during the coexistence period, the synthesis between the specific virtual evolution model and the values that the factors in that specific field are supposed to have during the evolution, 6.2) particular actual evolution model: the synthesis between the particular virtual evolution model and the values that the factors of that particular thing or being are supposed to have during the evolution, 6.3) global actual evolution model: the synthesis between the global virtual evolution model and the values that the factors within the global matrix are supposed to have during the evolution.

From every kind of model is possible to make lots of decisions. For that reason is important to distinguish between protective or bettering descriptive research decisions, from other ones that I will develop through the Modelling System, that will be: protective or bettering, virtual or actual, predictive or evolutionary, decisions, at particular, or global level, and specific level during the coexistence period.

All these decisions will be made in every virtual or actual, predictive or evolutionary, model, through the application of the Impact of the Defect to detect the flow of negative consequences in order to make protective decisions, or the Hierarchical Organisation (Effective Distribution) in order to better the model, regardless of its level: global or particular, or specific during the coexistence period.

The way in which the Modelling System should work is as follows:

- Taking the flow of rational hypotheses coming from the rational contrast, this flow of rational hypotheses forms a database of rational hypotheses within the Artificial Research by Deduction in the Global Artificial Intelligence.

- The database of rational hypotheses can have two functions: to be responsible for choosing all rational hypotheses to transform into factors as options to include in the global matrix if suitable according to some criteria or filter set up in the database itself, and to be the database of rational hypothesis to transform into a single virtual model by the Modelling System, which can be built as a system itself in the Global Artificial Intelligence or a subsystem within the Artificial Research by Deduction in the Global Artificial Intelligence, due to what it is going to do is the transformation of all rational hypothesis found out by Deduction into models. Most of the rational hypotheses in the database are going to be transformed into factors as options to include in the global

matrix (if they meet the criteria that could be set up for that purpose in the database of rational hypotheses, where all rational hypotheses should be added after a positive rational contrast), at the same time that all of them are going to be transformed into single models by the Modelling System.

- Once every rational hypothesis has been transformed into a single virtual model, then, it is included in the global model. In the case of a rational hypothesis made by Specific Artificial Intelligences by Artificial Research by Deduction, as long as the single model from the rational hypothesis made by this specific intelligence is included in the global model, it is a single model to include in its specific model. In the case of a rational hypothesis made by particular programs, single models from a particular rational hypothesis are single models to include in the particular model as well as the global model.

- Once the global model, specific models, and particular models, are completely updated, then it is possible to make protective and bettering descriptive research decisions and predictions.

- Over the predictions to model the specific, particular, or global prediction model, making protective and bettering decisions regarding the foreseeable future.

- And having an idea about which is the prediction, to model which is going to be the possible evolution of the events, making also protective and bettering decisions.

At all levels of this flow, the creation of virtual and actual models. The importance of actual models is because they are going to give a detailed panorama about how the global matrix is going to change along this process, or how specific or particular values are going to change, having a glance about how is going to be the global matrix or the specific or particular data, in the future under such predictions, and how is going to evolve, having a comprehensive glance synthesizing this information with the virtual information, a synthesis which is going to have as a result the actual models.

All decisions made by any kind of specific, particular, global, actual or virtual, model or predictive or evolutionary model, are going to be gathered in a database of decisions, which is going to be the first stage of the [Decisional System](#).

The first stage of the Decisional System is the database where all possible decisions, at any level: specific, particular or global, protective or bettering, descriptive, predictive, or evolutionary, are going to be gathered, being the database being updated permanently.

The second stage of the Decisional System is formed by all those rational mechanisms to criticise rationally every decision in order to know which decisions are rational and acceptable, discarding automatically any decision not sufficiently rational. Because the Decisional System is going to criticize thousands and thousands of decisions very fast, this process could be faster by the introduction of some check that every decision should pass at first instance, to test if there is no contradiction between this decision and any other one, or there is no contradiction between this decision and the fundamental aims of the Global Artificial Intelligence, such as the perpetual peace and the liberal paradigm.

The third stage of the Decisional System is the communication of all the rational decisions to the Application System, like a flow of instructions to put into practice.

Any mistake along this process must be evaluated permanently in order to become a learning, to be included in the Learning System, which in turn is going to produce a new flow of decisions, but at this time they are going to be subjective decisions, in order to produce a flow of subjective auto-replications.

As it is observable is a cascade process in which the last step of the last process is, in turn, the first step of the next process. This conceptual approach is inspired by a Hegelian perspective, emphasising interconnectivity and cyclic development across systems..

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